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RCEME

TECHNICAL BULLETIN

15 OCT 56

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GENERAL

This bulletin is published and distributed under the auspices of the DEME, but is not to be considered as an authority. It is intended as a periodic means of communicating unofficially, information on current and future Corps policy, and newsworthy general information, to officers of the RCEME Corps. Although the number of copies will only permit distribution down to and including majors due to printing limitations, it is hoped that this bulletin will be discussed with all officers so the contents can become known to all interested workshop personnel.

PLANS AND TRAINING

DOCTRINE

It is the ultimate aim that RCEME doctrine will be published in ten volumes (Canadian Army Military Training pamphlets). To achieve this end it is proposed that, by sections, the doctrine will be published initially in the EME Manual and it will remain in this form until the doctrine can be considered firm. The three parts of the EME Manual in which doctrine will appear (General, Field and Static Operations) have already been re-indexed to suit this plan. When the doctrine is firm, action will be taken to publish as CAMT pamphlets.

General C100 (now issued) will constitute Volume I - 'RCEME Basic Organization and Role'.

One pamphlet to Volume II, namely 'LADs', is now being prepared in the EME Manual.

PLANS

Armoured Workshops

A proposal to have three armoured workshops instead of two in an armoured division has been approved in principle. The new workshop will be a smaller, more mobile, more easily defended, unit. This will make the armoured division RCEME field repair organization much more flexible.

Stores Loading Trials

No data is yet available on which the number of stores-carrying vehicles required by RCEME field units can be calculated. Approval has been granted to conduct loading trials for an infantry workshop, a field

regiment LAD and an infantry brigade LAD, in Europe this summer. The units will be temporarily equipped as closely as possible with their standard mobilization requirements of stores and spare parts. A team of one officer and three other ranks will be provided from Canada to assist in the trials.

Deletion of Cooks from LADs

To economize in manpower and to decrease the administrative load, the deletion of cooks from LADs has been approved.

Activation of Field Engineer Regiment LAD

A field engineer regiment LAD has been activated and will be temporarily located in Chilliwack, BC. It has a war establishment of one officer and forty-four other ranks and a restricted establishment of one officer and twenty-two other ranks.

TRAINING

General

In recent years army and corps training policies have undergone considerable change, and the implementation of the new policies has increased the unit's responsibility for individual military and trades training. The following notes are set down for the guidance of all RCEME officers and for unit commanders in particular.

Officer Training

No formal training or courses are given to prepare officers for their promotion examinations, parts I and II. Therefore it is important that unit commanders give their officers all possible assistance and encouragement. (CAOs 20:14, 20:18 and 20:20 refer).

Staff Colleges

Officers are encouraged to write the Canadian Army Staff College entrance examinations. Graduation from Staff College greatly broadens an officer's career opportunities, and will benefit the Corps in the long term.

NCO Training

It is important that candidates for junior and senior NCO courses have the opportunity, encouragement, and assistance to reach the necessary standards which are issued under HQ 3675-1 (Trg men) dated 31 Dec 53 and GSI 54/15 respectively. The NCO home study course originated by Command EME Central Command and distributed on a DO basis about six months ago may be of assistance in this regard.

Trades Training

All trades training to the group 1 level (and to the group 2 level for the electronic trades) is carried out at the RCEME School or CVTS. Some courses for upgrading to group 3 are also conducted at the RCEME School. However, advancement to the group 2 level in trades other than electronic, and to the group 3 level in all but a few trades, is a unit responsibility.

The efficiency of the Corps and the morale of the individual will both be increased by having tradesmen qualified to the highest group in their trade commensurate with their ability. To this end unit commanders should ensure that all tradesmen receive the necessary in-job training to qualify for the next higher group. Also, unit commanders should ensure that full advantage is taken of career and equipment courses conducted at the RCEME School.

It is suggested that some record be kept of progress in trades training for each tradesman, showing in what functions for each trade group he is qualified. These records should be reviewed periodically by unit commanders, and copies should be forwarded with the man's documents when he is posted.

References

Most questions regarding military and trades training can be answered by referring to the various training publications:

(a) Canadian Army Courses Manual, which lists all courses conducted by the Canadian Army;

(b) The Courses Schedule and Allotment of Vacancies for Canadian Army Schools, which shows the dates of courses and allocation of vacancies;

(c) Trades Specifications, which give the prerequisites for each trade and group;

(d) Training Standards, which give the standard to be reached by each tradesman for each group;

(e) GSI-53/17, Individual training for other ranks;

(f) GSI-54/15, Training standards for senior NCOs;

(g) GSI-54/22 Trade and specialty training and qualification;

(h) HQ 3675-1 (Trg men) dated 31 Dec 53, training standards for junior NCOs.

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Field Reports

At the present time the RCEME School is conducting approximately thirty-five different trades courses. Syllabi are based on current training standards. In order that the value of the training given at the School can be assessed, and to assist in the revision of syllabi, reports from units, through normal channels, on the adequacy of training received at the School, would be appreciated. Reports might contain comments on:

(a) Suitability of present syllabi;

(b) Suggested additions or deletions;

(c) Time spent on various individual subjects;

(d) Good or bad points of courses.

EME Manual

It is proposed to issue an instruction on individual military and trades training in the near future.

Guided Missile Training and NIKI Trials

Selected electrical officers, radar artificers and radar technicians are being sent on courses in the United States to study the maintenance and repair of the equipment used in the operation of guided missiles. One officer and five senior NCOs who have had this training are taking part in the NIKI Arctic trials being conducted jointly by the US and Canadian armies at Churchill, Manitoba.

Collective Training, Camps Gagetown and Wainwright

In addition to normal participation in summer camps for the militia and cadets, RCEME will be heavily committed in the training at Gagetown and Wainwright this summer. All RCEME field units will be taking part in these concentrations and will be responsible for support of other field units as well as for their own training. In addition, all commands are contributing to the support of these two concentrations. DEME is also providing officers and NCOs for RCEME support, and is providing four officers for the control staff of the divisional exercise at Gagetown.

ARMAMENT

Recoil Systems

The introduction of US pattern artillery equipments has presented a number of new problems concerning maintenance and repair. A particular problem is the repair of nitrogen filled recoil systems, a problem not within the capacity of RCEME workshops. These recoil systems require plant facilities and special machine tooling to enable repair work to be done.

It is imperative that Armament Artificers and Gun Mechanics ensure that tests and adjustments for the recoil systems as outlined in the EME Manuals are strictly adhered to, particularly before the weapons are fired. Improper adjustments have already resulted in severe damage to seven 90mm AA Gun recoil systems.

Lubrication

The lubricant used in the traversing and elevating gearboxes of the 20 pr in the Centurion tank tends to solidify under cold weather conditions and difficulties in the operation of the equipment have been encountered. The design and development directorates are conducting tests in an endeavour to find an all weather lubricant which will overcome the problem.

INSTRUMENTS

New Instruments

It is expected that some new pattern instruments will be introduced to the field in the near future. These will include the sighting instruments for the 105mm and 155mm Howitzers and the rangefinder sight, optical lath and optical bore sight for the 3.2-in Rocket Launcher. Introduction of these new pattern instruments will increase the problem of maintenance, repair and overhaul.

Test Equipment

Certain new items of test equipment have been approved for use in RCEME Instrument Sections and are included in the applicable entitlement documents. These items are:

(a) Gauge, interocular, Mk 1 - A British pattern item for accurately testing and adjusting the interocular setting of binocular eyepieces. Information on the method of using this gauge during binocular repair work is included in EME Manual Instruments S 144.

(b) Adapter, scales testing tripod, No. 16, Mk 1 - A British pattern adapter to provide a quick and accurate method of testing for bubble roll in clinometers, quadrants, and spirit levels. A data summary and operating instruction for this adapter is being published in the EME Manual.

(c) Fixture, cross levelling and elevation - An American pattern test equipment used to test and adjust the accuracy of the Mounts, telescope, M21A1 CDN and M25 CDN on the 105mm and 155mm Howitzers. It is intended that this item of equipment will be provided only to the base and minor base workshops and to The RCEME School.

Procurement action has been taken by RCOC for the above items of equipment, however, workshops should submit demands but should not expect to receive them for several months.

Instrument personnel will be interested in knowing that many of the other standard items of test equipment, which have been in short supply in the past, will become available shortly. Much of the equipment is now under procurement and some has already been received. Telescopes, auxiliary, No 1 and No 2, Collimators No 2, and also a few Instrument testing scales are now in Ord Depots.

Sealing of Instruments

An instruction on the materials and technique to be used for the sealing of various types of joints in optical instruments is under preparation. This is a detailed instruction.

Centurion Instruments

There are still several instructions to be published on Centurion tank instruments. The most important of these being the field and base repairs for the Sight, periscopic, AFV No. 1 Mks 2, 3 and 4. Details of this work is still being awaited from the United Kingdom. It is hoped to have the information published in an EME Manual.

SMALL ARMS

Launcher Rocket 3.2-in Cdn Ex 1

The issue of the 3.2-in Rocket Launcher (Heller) will create new maintenance problems and repair techniques for the armourer. Armourers will be responsible for checking the rangefinder sight using the optical lath, however the repair of the sight will be the responsibility of the Instrument Sections.

F.N. Rifles

The troop trials with the FN rifle have brought to light the desirability of incorporating several changes and modifications. Included in these recommendations are a folding backsight and cocking handle, an improved method of adjusting the foresight, and a modification to the gas system.

75MM Recoilless Rifles

Several reports have been received from the field that 75MM rifles have developed forward recoil and that difficulty has been experienced in determining the number of vent bushings previously fitted, or number of rounds fired due to the history document being lost.

DEME is arranging to have tests carried out on several rifles to determine serviceability and remaining life. In the meantime it is requested that armourers ensure that vent bushings are numbered in accordance with EME Manual Small Arms G129 Instr 1 and that a Recoilless Rifle History (CAFC 2318) is maintained for each equipment in accordance with Small Arms A161. This is most important.

Shooting News

For the past three years RCEME has participated in a service shooting competition with the REME and RAEME. This match is called the "Triangular Match" and the three corps compete annually for a trophy which was presented by the RCEME Rifle Association.

Each Corps competes in their respective countries and the match registers are forwarded to the REME Rifle Association which is responsible for conducting the competition and forwarding the trophy to the winning team.

REME have won the trophy on each occasion, with RCEME second and the RAEME third. The winning team presents each member of their team with a suitable trophy and also presents a trophy to the high man of the other two teams. The winners of trophies in RCEME and their scores are as follows:

1953	S/Sgt M.W. Norman	5 Coy - 171
1954	Major R.F. Fendick	AHQ - 166
1955	WO 1 Gladwin	10 Coy - 167

It is hoped that 1956 will see an increasing number of RCEME personnel participating in this competition within the various Commands.

COMMUNICATIONS

Equipment

The following new items of US Army signal equipment are being introduced into the Service:

(a) Radio Set AN/PRC-510

(b) Telephone Set TA-43/PT

(c) Teletypewriter Set TT-4/TG

Defects to these equipments will be reported similarly to those for Radio Set CPRC-26; make the component failure reports as accurate and as comprehensive as possible.

Reports the past year show the following common failures on Radio Set CPRC-26:

(a) Handset Pressel Switch, cable and receiver

(b) Antenna AT 5001/PRC

However, there has lately been many failures of the 0.01 uf capacitors; these should be watched closely.

The EIS for the Z-lorry is being amended to include almost all the equipment found in the new post-war Z-lorry now being developed. If there is any test detailed in the EME Manual which cannot be carried out using this EIS, DEME should be notified immediately. Your comments on the tools would also be appreciated, bearing in mind that the vehicle is designed to be supported by the rest of the workshop for such items as grinders, drill presses, commutator lathes, and tinsmithing tools.

A tuning tool for Radio Set AN/PRC510 is being added to the EIS 588 (tels tool kit).

Wireless Sets No 19 are in short supply as are the items on the EIS, therefore every effort should be made to repair them.

Although Wireless Set No 58 Mk 1* T will be shortly withdrawn from Regular and Militia units, do not throw away the adaptors you have built up. These sets will be reconditioned and re-issued to certain users. Wireless Set No 88 is definitely out.

Radio artificers and technicians are expected to keep up to date with new developments in the electronic field: the transistor can be expected in Service equipment in two years; radiac equipment is already in use.

Test Equipment

A program of standardizing general purpose test equipment has been carried on for a number of years to provide an adequate supply of reliable test equipment without undue overlapping.

These have been divided into technical 'usage areas' such as voltage and current measurement, frequency waveform, signal generation, and power measurement. Each of these may be further divided because of technical limitations. Wherever practical there will be a low precision item and a more accurate one.

Since most commercial items are not sufficiently reliable or rugged for military use, military characteristics have been produced for equipment within these specific 'usage areas'.

The use of the word "standard" does not imply that the equipment is a precision instrument, but that it meets the military characteristics and has been adopted as standard equipment by the Canadian Army and in some instances by all three Cdn services. It may be an instrument of limited facilities and low precision which, because of size, reliability, ease of operation, etc, is considered most suitable.

No equipment will be declared standard which does not meet the military characteristic. Other equipments which are reasonably satisfactory will be retained in use as 'substitute standard'; others which can serve as interim equipment will be declared 'limited standard', and no further provision action of complete equipments or spare parts will be taken.

Some of the new standard items are listed below:

4Z 1011695 GENERATOR SET, signal, RF, AN/URM-25D

This item is now available for issue to units; it is an AM Generator to cover the frequency range up to 50 Mcs. The xyO and yx1 will be shipped to Commands within six weeks. The xy2 is now in preparation.

4Z 1014801 GENERATOR, signal, SG 5007/U

Units will be advised when this becomes available. It is a FM Generator to cover the frequency range 19.7 to 102.5 Mcs with deviation variable from 0-100 Kcs.

4Z 1013213 METER, frequency deviation FR 5001/U

A few have already been issued; complete stocks will be available within the next eight weeks. The xyO, and xy2 have been distributed. The range covered is 20-100 Mcs.

4Z 1014829 WATTMETER, AF, ME-5006/U

This audio frequency wattmeter is now being procured. Some have been issued to meet the urgent requirement in the repair of Radio Sets CPRC-26. Units will be advised when complete stocks become available. The xyO and xy2 have been distributed.

4Z 1014802 WATTMETER, RF, ME 5005/U

This wattmeter (1-100 Mc, 0-25W) is now being procured. Units will be advised when the item becomes available. The xyO and xy2 have been distributed.

Tools

The Tels Tool Kit EIS 588 was amended in Sept 55 to incorporate miniature tools. Please advise if there are any deficiencies in this scale.

RADAR

Anti-Aircraft Fire Control Systems M 33c will be issued, in the near future, to Militia units. Unit personnel responsible for the operation and non-technical maintenance of the equipment may, of necessity, be trained to a standard below those of Regular army units. In addition, the lack of air-co-operation necessitates that the training carried out on the radars will be primarily of the 'dry run' variety which entails the acquisition and tracking of simulated targets. Past experience has proven that radars used to train relatively unqualified personnel are subjected to more than normal wear, and early deterioration usually results if equipment maintenance relaxes due to the fact that optimum performance and accuracy are not prime requisites. RCEME unit maintenance and inspection personnel should take this into account when doing their work and should assist the unit to maintain a high standard of maintenance.

The heating system of the M33c is unsatisfactory and is to be modified (EME Manual Elec O 517 Inst 7). The heating system and new method of operation is described in EME Manual Elec O 519 Inst 12. RCEME personnel at units should ensure that artillery personnel are following the proper procedure of operation of the air dampers.

ELECTRICAL

90mm Medium AA Gun

Several instances have been reported of 90mm remote control system wiring failure. It may become necessary to replace most of the wiring due to age and proximity to oil seepage. Equipment failure reports are required.

The EIS of a maintenance tool kit for the remote control system and fuze setter, should be completed as soon as test fuzes are available for the kits.

Ferret Scout Car - Electrical Components

Difficulty has been experienced with the generator panel (regulator) of the Ferret. Failure of this component usually results in burnout of cut-out points and current coil and may result in the burnout of the generator. These failures are caused by design defects which MUST be corrected by the manufacturer, as soon as replacement panels are received from the UK on loan. It is hoped that all Ferrets will be modified by the end of the year.

Prior to replacing the panel the generator must be modified by fitting additional brush interconnectors (EME Manual Vehs N027 Inst 2). The work has top priority; it should be done before fitting a replacement generator.

Centurion Tank - Engine Tachogenerator

Failure of the engine tachogenerator has reached considerable proportions usually caused by the failure of the oil seal. New seals are being procured by Ordnance and careful stripping and cleaning should clear the trouble. The permanent magnet rotor must be handled gently and a soft iron keeper slipped over the rotor while it is out of the tachogenerator. In many cases, there is no apparent electrical defect in the units backloaded to 25 COD but the bakelite terminal strip is usually found to be cracked by careless removing. These components are in short supply so test carefully before backloading them as N/S; minor chipping of the bakelite terminal strip is unimportant.

Truck, Cargo, 2 1/2 Ton 6 x 6 (GMC)

Changes to generators and regulators to improve radio suppression characteristics have resulted in two generators and two regulators being held for this truck. Investigation has proven that these components can be considered interchangeable (EME Manual Vehs C669 Misc Instr 23).

Testing of the sealed and waterproofed electrical systems on SMP vehicles requires a special adapter kit; see Supplement 4 to CAF S23-500 and other relevant equipment tables. This is catalogued as:- "MT 751919 Adapter Set, testing, 24-V, sealed electrical systems, wheeled vehicle set".

VEHICLES

Centurion all Mks - Technical Handbook

It is understood that the UK will publish a new Technical Handbook for Centurion Mks 3, 5, 7 and 8 to replace Technical Handbook for Centurion Mks 1, 2 and 3 (War Office Code No. 1899). This will be available in 1957.

Car, Scout, Ferret Mk 1

There is no manual published for the Ferret, therefore EME Regulations have been used as a temporary measure. However, as the British Materials and Permissive Repair Schedule do not correspond with RCEME, the use of these EMERS will be discontinued as soon as possible.

Unit repairs have been published under EME Manual Vehs N 023. Field and base repairs under Vehs N 024 and the Rolls Royce B series engines in the Vehs X block. Normally, repair items which may be carried out while the engine is in the vehicle will appear in the Vehs N block. The engine or components should normally be removed for those items appearing in the Vehs X block.

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Centurion ARV MK 2

Information for the field in the form of manuals, etc, on the ARV now being obtained for Canada, will not be available for some time. Meanwhile, the following information may be of some assistance. Centurion Mk 3 User Handbook, W. O. Code No. 10538 is to be used for the basic vehicle. A form of User Handbook on the recovery equipment will be issued with each vehicle. The winch engine is a Rolls Royce "B" 80. For this engine, the majority of the information on the Ferret B 60 engine can be used. Until a maintenance insert is published, lubrication and parade maintenance should be carried out in accordance with the Centurion insert for the basic vehicle, and the Ferret insert for the winch engines.

Centurion, all Mks - Final Drives

Final drives have failed in the past, to the extent of causing some alarm. Every effort was made to arrive at the cause of this failure. It is perhaps reasonable to conclude that the design overload characteristics are marginal, and only careful inspection, lubrication and intelligent driving methods will alleviate failures. Correct track tension is all important.

Truck 2 1/2 Ton SMP

Reports of failures of wheel studs have been received. Since these reports are few and scattered it is felt that the failures are due to oversight in daily maintenance.

The maintenance insert calls for a daily inspection of wheel stud nuts on last parade and tightening as required.

The correct torque for these nuts is 300 to 350 ft lb but it is not feasible for every driver to have a torque wrench. It is felt, therefore, that the driver should be able to judge by the feel of the wrench whether the nut is tight or loose.

After the installation of a replacement stud, the nut should be checked at every halt until it appears to be seated after which the daily last parade check is sufficient.

This applies to other SMP and SC vehicles as well.

A new sector shaft is being produced but is not available to the field as yet.

The cooling system of this vehicle is of the sealed pressure type.

The pressure is maintained by a pressure valve in radiator top tank and keeps the pressure at approximately 6 1/2 pounds in the cooling system when the engine is at operating temperature.

When checking the cooling system, open coolant level cock (located in radiator upper tank) before attempting to remove the radiator cap. This will reduce the pressure in the system and avoid possible burns by steam if the engine is at operating temperature.

When draining or refilling the system the instructions as detailed in the Operator's manual CDN-OM9-819A, page 75, will be strictly adhered to.

Universal Carriers

Universal Carriers are now a limited standard item and replacements will not be available.

The installation of various types of infantry weapons for Infantry Corps requirements will be authorized by AHQ from time to time.

MANPOWER ECONOMY

The standardization of workshop and company organizations, and general management of workshops is now largely completed. The last major establishment done was the Base Workshop at Longue Pointe, Montreal.

This standardization has without doubt greatly improved the efficiency of the corps as a whole. Economies made can be found in lowered civilian contract expenditures, better control over workshop loading, more economical use of space and by judicious work planning for parts provision, thus reducing 'down time' for parts.

There is still plenty of room for further economies to be made in other workshop activities. It is suggested that all officers pay particular attention to the following:

(a) quality and cost control of civilian contracts

(b) elimination of the duplication in inspection work

(c) most economical use of workshop facilities

(d) examination of work methods and techniques

(e) maximum reclamation of parts and assemblies within economical limits.

A word of explanation of sub para (b) and (c) above will perhaps help.

(a) It is thought that if workshops exercise very close liaison with those RCEME tradesmen who are inspecting or working with unit equipments, that much information and data needed for

repair work pre-planning could be made available to workshop control offices and that by education, such information could be used to load a workshop without recourse to additional inspections.

(b) Workshop officers must use their facilities to maximum advantage. The total 'down time' for an equipment, compared to the actual number of work days used to complete a repair, indicates that workshop space is committed without the pre-planning requisites properly satisfied. Similarly, equipments to be repaired by civilian contracts should be moved, if possible, directly to the contractor.

BACKLOADING POLICY

Backloading and repair policy has been brought up to date and will shortly be republished. The guiding principle has been to provide repair service either by RCEME workshop, or civilian contract as near as possible to workload in order to achieve lowest cost and lowest 'down time'.

RCEME INSPECTION TEAMS

It is suggested that Coy commanders consider the advisability of grouping their inspection teams together in order to economize on personnel travel funds, and make the management and control of these teams simpler.

HAND TOOL KITS

Units are responsible for keeping the equipment issue scales amended and to ensure that the contents of the tool kit are kept up to date. All units should possess an EIS index; amendments are published in CAOs.

PROVISION OF WORKSHOP ACCOMMODATION

The primary role of RCEME in peace time is to provide suitable training ground for military and civilian tradesmen. To provide realistic training and to enable individual workshops to handle part of the workload, RCEME has been provided with certain workshop facilities; civilian contracts are provided to handle the balance of the workload. Only in isolated stations or in military camps is there any attempt made to provide sufficient facilities to handle the full local workload.

REPAIR TECHNIQUE STANDARDIZATION

Personnel have now been provided at DEME, 202 Base Workshop, and 17 Coy to study RCEME repair methods in order to develop standard techniques. To date much work has been done on the Centurion AFV. Artificers have been studying in England and a study group was held early in April at the Base Workshop, Montreal, to discuss and disseminate this new information.

SCALES

Materiel Entitlement Documents

From reports received, it is evident that Workshop Commanders are not too familiar with the entitlement documents applicable to their Units.

CA(O) 97-1 lists the various materiel entitlement documents, describing briefly their scope, format, notification and distribution. The following paragraphs emphasize some of those points:-

The Equipment Issue Scale (EIS)

Lists the component parts and, where applicable, ancillaries and spares which together form an equipment set. The EIS is normally divided into two columns, ie, a 'minimum for use' column and an 'essential ancillaries and spares' column. In Canada an equipment would be issued complete with 'minimum for use' column items only. If required, a unit has to demand the 'essential ancillaries and spares' items.

EIS are not distributed automatically. Units demand on headquarters of commands and areas or formations for individual EIS needed.

Units should have "Index to Equipment Issue Scales, Issue 2, Jun 52" which lists all EIS in force. This index is available on demand from commands. Amendments to this index are notified in Supplements A to CA(O) from time to time.

Equipment Tables (Static)

The entitlement of tools and equipment for static RCEME workshops in Canada, except 202 Base Workshop RCEME, is found in Supplement 4 to CAFS 23-500. This document lists tools and equipment which are generally common to a number of workshops. Tools used primarily to carry out a repair peculiar to individual workshops are contained in the equipment tables for these workshops. Tools for AWDs are found in Supp 4 to CAFS 23-500. Tools for inspection teams will be published in Supp 4 to CAFS 23-500. Tools for militia servicing sections are at present found in CAFS 23-500 Part 4 Scale 4-4. They will be republished in Supp 4 to CAFC 23-500. Equipment Tables are authorized in Supplements to CA(O) 97-1 and are distributed automatically.

WORKSHOP INVESTIGATION

The following new items of equipment for use with steam cleaners are being introduced into RCEME workshops:

(a) Capsule, Surface Active Material

(b) Outfit Blender Vehicle Cleaning

As a result of tests carried out in 228 Workshop, Hagersville, and 207 Workshop, Barriefield, it has been decided to use the Capsule, Surface Active Material, in conjunction with the Outfit, Blender Vehicle Cleaning, in lieu of the soaps and softeners at present used with steam cleaners. The main advantages in the use of this equipment are economy and efficiency. It was found that the capsules are cheaper than the soap powders and that labour costs were saved as the mixing time is eliminated, being done automatically in the outfit blender. The improved consistency of the chemical additive proved to be more effective and speeded up the cleaning action.

In addition, the capsules are easier to store and do not deteriorate in extreme climatic conditions. There is no skin irritation, as has been found with other chemicals.

An EME Manual instruction is under publication on the installation and use of this equipment. Equipment Tables have been amended to include one Outfit Blender to each cleaner authorized, together with an initial issue of three months' supply of capsules. The items have been catalogued under Ord Cat No 314044 Capsule, Surface Active Material and Ord Cat No 7K 308386 Outfit Blender Vehicle Cleaning. Ordnance are now taking purchase action and it is hoped that the equipment will be available for issue when the present estimated three months' stocks of soap powder and softeners are exhausted; issues of these stores should be automatic.

PUBLICATIONS

The inconvenient 'Telex' green binder for the EME Manual will soon be a thing of the past. The hard red ring binder has been approved for use by all units and these will replace the green binders when they are worn out.

EME Manual instructions will likely soon be distributed by RCOC direct to units; Pubs section, DEME, have started on the big job of preparing a master list for DOS, from which initial distribution will be made. Command EMEs will no longer be required to maintain some 2000 cards for classes and codes.

MISCELLANEOUS

Corps Strength

Although this information may not be apparent in Commands, it is interesting to note that with the addition of approximately eighty officers and fifty other ranks, the corps would be at full strength.

According to statistics regarding recruiting of military personnel recruiting more than balances wastage.

In view of the above, Officers Commanding RCEME units would do well to exercise careful screening during periods of re-engagements.

A list of officers and their locations is attached.

Regimental

Recently some consideration was given to a possible modification to the Corps flag.

It was felt that more distinction was required for the RCEME flag, as illustrated by the REME and RAEME Corps flags.

Some corps of the Canadian Army have included the cap badge in their flag, or altered the general design of the flag. The colours and design of Corps flags are described in CAO 53-3.

RCEME officers are invited to forward comments and suggestions to DEME regarding possible modifications to our Corps flag.

The Corps has adopted the REME Regimental March, a medley of "Lillibolero", "Aupres de ma Blonde". The complete military band score is available from Boosey & Hawkes, 209 Victoria St, Toronto, at $1.50. Unsuccessful attempts have been made to procure a recording.

Dress

Officers and WOs considering anodised buttons will be interested in the following:

Following are extracts from the minutes of the 113th meeting of the Clothing and General Stores Development Committee (Clothing) held at the War Office 16 Dec 55, concerning the experience of the British Services in respect to the use of anodised aluminum buttons.

"Anodised Buttons

This pattern button was accepted at the 25th Meeting (8th Feb 1950) and finally approved for use as Nos. 1 and 3 Dress and on greatcoats.

Experience has shown that these buttons are not sufficiently robust for service wear, particularly if small arms drill is carried out (eg, when greatcoats are worn). Anodised buttons have two main advantages; namely, better appearance and no cleaning required. The disadvantages are that they dent and scratch easily and are more expensive than the previous type of button made of gilding metal.

It is reported that the RAF (for whom the anodised button is an optional article), have gone back to gilding metal."

A THOUGHT

What Qualities Do I Need for a Successful Career in Any Organization?

While this is a rather broad question I am sure it is one of real importance to any young man starting out in an organization such as

RCEME and looking forward to a position of responsibility in any one of our successful units.

The mere asking of this question indicates that the individual has a definite goal or objective. This is important since progress can be made only if we attempt to reach a well-defined objective --even though it may be modified to some extent in the light of later experience. In RCEME we are looking forward to young men who have not only determined their objective, but are ready to work for it -- who accept responsibility and have ability to get things done -- who work well with others -- to be a part of the team.

This calls for other qualities essential to long range success. We look for the enthusiastic individual, one not easily discouraged who can inspire the confidence of his co-workers. We desire individuals who show imagination and good judgement -- particularly the ability to look ahead and maintain perspective beyond the immediate situation. Finally, we cannot overlook the qualities of loyalty and dependability since these are important in steering the individual through periods of discouragement which occur in every career.

LOCATION OF RCEME OFFICERS

NAME		LOCATION
COLONELS		
J.R.	Dunlop	DEME, AHQ
R.F.	Jobson	202 Base Wksp
C.W.	Jones	The RCEME School
LIEUTENANT-COLONELS		
G.F.	Bradbury	TSO 1 QMG Br (DVD)
R.A.	Campbell	DEME, AHQ
G.C.	Cavaghan	DVD, AHQ
E.W.	Coleman	17 Coy
W.M.	Dalrymple	HQ RCEME, Prairie Comd
C.M.R.	Elmsley	CAS (W) Liaison Officer US Army
H.W.	Hagey	DEME, AHQ
W.G.	Hamilton	CDN Army Staff, SHAPE
A.N.	Huddleston	DQMG, (D & D)
W.S.	Hunt	CSO 1 CAS (W)
E.C.	King	DEME, AHQ
P.C.	King	Royal Military College
C.G.	Kirby	HQ RCEME, Eastern Comd
G.T.	Kirk	HQ CREME, 1 Cdn Inf Div
J.R.	McLarnon	DDP (Extended leave of absence Employed with Sorel Industries Ltd)
A.	Mendelsohn	CASC
A.	Miller	HQ RCEME, Quebec Comd
A.O.	Monk	Cdn Arsenals Ltd
H.G.F.	Morgan	DEME, AHQ
R.H.	Ramsay	HQ RCEME, Western Comd
H.M.	Robinson	DEME, AHQ

LIEUTENANT-COLONELS (cont'd)

	A.G.	Sangster	DEME, AHQ
	S.	Stucken	Cdn Arsenals Ltd
	G.W.	Thompson	HQ RCEME, Central Comd
	K.R.	Ward	DEME, AHQ

MAJORS

	E.R.	Ambrose	16 Coy
	R.W.	Anderson	17 Coy
	H.C.	Banham	Indo-China
	H.L.	Beanlands	DEME, AHQ
	W.	Beddard	40 Inf Wksp
	V.W.	Bethel	202 Base Wksp
	C.H.	Betts	DAD, AHQ
A/Maj	J.H.	Bourne	43 Inf Wksp
	W.J.	Branston	DEME, AHQ
	E.M.	Brignell	12 Coy
	T.	Bromage	6 Coy
	H.	Brown	Inspection Services
	G.W.	Bruce	IQS
	D.A.	Campbell	DEME, AHQ
	D.D.	Campbell	RCEME School
	W.A.	Campbell	202 Base Wksp
	D.G.	Carlyle	CAS (W)
	C.N.	Carscallen	1 Cdn Base Rep Sec
	H.L.	Cohen	DEME, AHQ
	E.W.	Cole	20 Coy

MAJORS (cont'd)

	J.H.	Coombe	DEME, AHQ
	F.E.	Cooper	RCEME School
	F.	Coultish	42 Inf Wksp
	J.C.	Currie	Dept of Defence Production
	J.E.	Cuzner	11 Coy
A/Maj	F.L.	Demone	HQ RCEME, Eastern Comd
	M.A.	Dolan	CAORE
	W.A.	Down	205 Base Wksp
	H.H.E.	Erb	41 Inf Wksp
	A.E.	Esdaile	202 Base Wksp
A/Maj	R.F.	Fendick	AG Br, D Pers
	R.K.	Fulford	Inspection Services
	J.J.	Garnett	2 Coy
	W.H.	Glover	DEME, AHQ
	H.	Goodfellow	DEME, AHQ
	R.E.	Hallam	202 Base Wksp
	E.J.	Hare	RCEME School
	E.J.O.	Harvey	3 Coy
	T.R.	Heal	DVD, AHQ
	E.F.	Hendricks	RCEME School
	R.H.C.	Hodgson	8 Coy
	E.C.	Ilott	Dept of Defence Production
	A.J.	Jeffery	Indo-China
	F.R.	Kaye	UK Exchange Offr CALE (C & D Sec) HL
A/Maj	H.L.M.	King	TSO 2 CALE

MAJORS (cont'd)

	J.D.	Kenyon	VEPE
	J.S.	Kitto	17 Coy
	R.C.	Lane	VEPE
	W.H.	Lane	17 Coy
	E.W.	Laver	HQ Cdn Base Units, Europe
	A.H.R.	Lewis	DAQMG, HQ Eastern Comd
	G.L.	Lodge	RCEME School
	J.L.	Loughridge	DADME, NWE
	R.L.	MacDonald	1 Coy
	A.L.	MacLean	DEME, AHQ
	J.H.	MacLean	6 Coy
	A.G.M.	Maitland	AG Br (D Manning)
	R.D.	Maybee	13 Coy
	L.E.	McClelland	4 Coy
A/Maj	H.E.	McLaughlin	7 Coy
	I.M.	McLaughlin	TSO 2 CADEE
	H.	McManus	DEME, AHQ
	G.P.	Miggins	18 Coy
	A.F.	Moore	17 Coy
	K.L.	Murray	10 Coy
	W.J.	Owens	DVD, AHQ
A/Maj	J.N.	Pinder Moss	DEME, AHQ
	P.L.W.	Platt	HQ RCEME, Quebec Comd
	C.G.	Provan	TSO 2 DQMG (D & D)
	C.G.	Racicot	5 Coy

MAJORS (cont'd)

A.N.P.	Roberts	DAQMG, HQ Central Comd
B.	Screaton	HQ RCEME, Central Comd
F.J.	Sergi	HQ 1 Cdn Inf Bde
J.P.	Sherren	HQ RCEME, Prairie Comd
J.L.	Sloan	DVD, AHQ (Blocks DEME vacancy)
S.G.	Tait	HQ CREME, 1 Cdn Inf Div
D.J.	Tidy	CAS(W) Detroit
J.M.	Whittingham	DEME, AHQ
J.A.	Wilson	HQ RCEME, Western Comd

CAPTAINS

J.	Adams	DEME, AHQ
W.D.	Alexander	Incr 'A', VEPE
E.R.H.	Anderson	8 Coy
L.W.	Armstrong	13 Coy
R.A.	Auckland	RCEME School
R.K.	Beach	DVD, AHQ
B.E.	Babcock	1 Cdn Base Repair Sec
G.E.	Ball	7 Coy
P.	Bateson	RCEME School — Ruines pilot course
G.A.	Belcher	17 Coy
E.P.	Bishop	DEME, AHQ
F.C.	Bridges	DEME, AHQ
J.C.	Boughton	HQ CREME 1 Cdn Inf Div
G.R.	Burton	41 Inf Wksp
J.L.	Calvert	18 Coy

CAPTAINS (cont'd)

F.R.	Carruthers	4 Coy
H.R.	Cavanagh	CAS (W) C & D (Blocks DEME Vac)
F.W.	Chapman	10 Coy
H.W.	Chapman	RCD LAD
G.F.H.	Chess	40 Inf Wksp
J.F.	Clarabut	CASC
B.C.	Clerke	Indo-China
J.E.	Coates	43 Inf Wksp
K.L.F.	Coupland	RMC
J.N.	Courtenay	42 Inf Wksp
B.B.	Cox	RCEME School
G.C.	Craft	DAD, AHQ
E.B.	Creber	CASW C & D Est (Blocks RCSA AA Vac)
A.M.	Croft	MC of S
J.J.E.	Cuddihey	DAD, AHQ
D.H.	Cumming	3 Coy
L.A.	Daviss	10 Coy
J.D.	Delaney	Inf Sigs Regt LAD
B.	Deibert	4 CIB LAD
K.F.	Duggan	1 RCHA LAD
W.E.	Ellis	3 Coy
G.L.	Evans	10 Coy
H.J.	Fleming	17 Coy
S.A.	Fougere	5 Coy
D.H.	Fraser	RCEME School

CAPTAINS (cont'd)

S.A.	Girdler	VEPE
B.H.	Goodings	D Org, AHQ
G.E.	Grainger	CASEE
D.A.	Grant	DAD, AHQ
A.D.L.	Grinham	DEME, AHQ
W.J.A.	Groom	41 Inf Wksp
W.J.N.	Haggins	MC of S
D.V.	Hampson	1 CIB LAD
H.V.	Hann	10 Coy
C.B.	Hellyer	RCEME School
L.F.	Holland	Course USA (Block Vac School)
H.W.	House	DEME, AHQ
A.W.	Hughes	8 Coy
R.G.	Humphreys	202 Base Wksp
C.A.	Hurst	16 Coy
F.G.	Johnson	DEME, AHQ
E.G.	Jones	RCEME School
K.R.	Joslin	MC of S
J.J.	Kane	DEME, AHQ
J.W.	Lelacheur	19 Coy
C.G.	Lawrence	Post Grad Course - U of M
A.L.	Leonard	13 Coy
R.W.	Libbey	CASC
H.B.	Lightfoot	RCEME School
R.R.	Logan	17 Coy
- --	-	CASC

CAPTAINS (cont'd)

J.A.	MacDonald	205 Base Wksp
A.L.D.	MacDonell	202 Base Wksp
D.H.	MacHale	DWD, AHQ
R.H.	MacLeod	3 CIB LAD
R.A.	McKay-Keenan	DVD, AHQ
F.J.	McNaughton	Ld SH LAD
J.S.	McIntyre	DEME, AHQ
J.G.E.	Metcalfe	43 Inf Wksp
W.J.	Mildon	RCEME School
J.W.	Moody	MC of S
C.R.	Morgan	DEME, AHQ
M.M.	Morgan	2 Coy
D.R.	Mowbray	12 Coy
D.A.	Nicholson	1 Coy
P.H.	North	RCEME School
G.L.	O'Brien	RCEME School
J.C.	Ormond	DEME, AHQ
T.W.	Oxley	17 Coy
K.S.	Parton	2 RCHA LAD
R.	Peters	2 CIB LAD
J.R.	Peters	RCEME School
T.R.	Palfrey	13 Coy
H.C.R.	Pfeiffer	11 Coy
H.A.	Popkin	DQOP, AHQ
P.J.	Prediger	Br of AG (D Pers)
H.F.	Protheroe	CALE (UK)

CAPTAINS (cont'd)

W.	Rhodes	DE & CD, AHQ
R.C.	Rivers	RCEME School
A.T.	Roberts	10 Coy
M.R.	Robinson	202 Base Wksp
R.E.	Rodgers	BEME 2 Bde
W.E.	Royds	D Pers RCEME (Blocks DEME Vac)
M.	Ruscher	CASC
L.A.	Sainsbury	CAS (W) C & D Est
D.A.	Saunders	11 Coy
G.D.	Savage	CAS (W) C & D Est (Blocks 12 Coy Vac)
I.C.	Scarlett	DAD, AHQ
R.N.	Shaw	VEPE
W.R.	Shaw	11 Coy
J.O.	Sheehan	RCEME School
J.A.	Stott	12 Coy
W.G.	Svab	CJATC
J.J.	Tevlin	17 Coy
A.R.	Thomsen	6 Coy
J.M.	Treleaven	1 Fd Eng Rgt LAD
J.D.	Trevithick	42 Inf Wksp
P.A.	Tuck	CASC
W.W.	Virtue	MC of S
R.W.	Vollett	CADEE
L.E.	Webber	DEME, AHQ

CAPTAINS (cont'd)

W.R.	Willing	40 Inf Wksp
G.A.	Wright	CAS(W) C & D (Post Grad Ann Arbor)
B.	Yarymowich	4 Coy

LIEUTENANTS

P.W.	Balcom	41 Wksp (EME Course)
G.F.	Bews	VEPE
N.E.	Birchard	HQ RCEME, Central Comd
G.N.	Brent	205 Base Wksp
J.E.	Brewster	12 Coy
F.N.	Brodie	RCEME School
J.E.	Brown	2 Coy
P.L.	Burcombe	202 Base Wksp
F.J.	Burton	17 Coy
C.O.	Bush	HQ RCEME, Prairie Comd
L.N.	Bydal	RCEME School
A.B.	Cantlon	16 Coy
G.	Charles	205 Base Wksp
F.	Chess	43 Inf Wksp
R.D.L.	Connell	RCEME School
E.M.	Conway	40 Inf Wksp
W.M.	Coombe	DEME, AHQ
J.H.	Cooper	RCEME School
D.H.	Curling	16 Coy
F.A.	Dixon	RMC
F.F.	Doherty	D Org, AHQ

LIEUTENANTS (cont'd)

O.A.	Emond	RCEME School
H.T.	Edworthy	6 Coy
A.E.	Elliott	202 Base Wksp
A.S.	Etter	HQ RCEME, Quebec Comd
G.R.	Fanjoy	43 Wksp (~~EME Course~~)
R.J.	Francis	1 CBRS
A.M.	Gilbert	DEME, AHQ
F.B.	Goring	17 Coy
J.R.	Griffin	16 Coy (~~on EME Course~~)
G.M.	Hagan	RCEME School
J.B.	Halcro	3 Coy (~~on EME Course~~)
J.R.A.L.	Hamel	205 Base Wksp
P.E.V.	Hansen	40 Inf Wksp
R.V.	Hill	202 Base Wksp (Capt)
J.H.F.	Jennekins	Queen U. (Final Year)
J.R.	Kaye	HQ RCEME, Western Comd
K.T.	Kennah	40 Inf Wksp
J.E.	Kerr	DEME, AHQ
W.T.	Kingston	RCEME School
J.J.	Klinec	11 Coy
N.E.	Laviolette	5 Coy
W.F.	Lucano	RCD, LAD
A.M.	MacDonald	HQ CBUE
A.J.	MacGillivray	7 Coy
R.L.	MacIntosh	MC of S

LIEUTENANTS (cont'd)

	D.M.	Maher	202 Base Wksp
	J.D.	McDougall	RCEME School
	M.D.	McKinlay	RCEME School
	C.A.	Millar	RCEME School
	J.L.	Moyse	HQ RCEME, Eastern Comd
	E.G.	Nelson	7 Coy (~~on EME Course~~)
	P.B.	Nicholson	42 Inf Wksp (~~on RCEME Course~~)
	T.A.	Noon	RMC
A/Capt	W.H.	Norton	Indo-China
	J.F.	O'Connor	8 Coy
	J.R.	O'Neill	D Org, AHQ
	F.A.	Ouimet	RCEME School
	H.A.	Patterson	10 Coy
	H.R.	Perry	DEME, AHQ
	C.H.	Putt	A Sqn RCD
	J.F.	Rea	RMC
	J.A.	Richards	20 Coy
	H.L.	Robinson	1 LAA LAD
	V.	Roddick	Ld SH LAD
	H.A.	Rosson	RCEME School
	W.G.L.	Russell	202 Base Wksp
	R.B.	Screaton	Queens University (Final Year)
	D.J.	Seabrook	16 Coy
	J.A.	Senez	SRS List College Militaire de Saint-Jean
	J.W.	Shields	~~17 Coy~~ RCME

NAME		LOCATION
LIEUTENANTS (cont'd)		
W.D.	Sneddon	6 Coy
D.V.	Stafford	HQ Cencom I&A Cadre
E.J.	Stow	3 Coy
J.K.	Sullivan	RCEME School
G.W.	Swallow	202 Base Wksp
R.B.	Swansburg	12 Coy (~~EME Course~~)
W.A.	Thomas	1 CBRS 1
P.G.	Vyvyan	4 RCHA LAD
D.S.	White	17 Coy
M.G.	White	42 Inf Wksp
D.P.W.	Wood	HQ RCEME, Central Comd
B.H.	Wright	11 Coy